

REMARKS

Applicant has carefully reviewed the Application in light of the Office Action dated October 5, 2004. Claims 1-22 are pending and stand rejected. Claims 2, 4-7, and 19 are objected to. Applicant has amended Claims 1, 2, 4-7, 13-15, 19, and 22 and added Claims 23-26. Applicant respectfully submits that no new matter has been added by these amendments or new claims. For the reasons provided below, Applicant submits that the pending claims are patentably distinguishable over the cited reference. Therefore, Applicant respectfully requests reconsideration and favorable action in this case.

Objections

The Examiner objected to the drawings as failing to comply with 37 C.F.R. 1.84(p)(5) because the following reference characters were not mentioned in the description: (a) Figure 2, reference sign 230; and (b) Figure 7, reference signs 718 and 720. Applicant has deleted the reference sign 230 from Figure 2. In addition, the specification was amended to recite, "The control unit 610 may also receive signals from nozzle switch 718 and pulse generator 720." Accordingly, Applicant respectfully requests withdrawal of these objections.

In addition, the Examiner objected to Claim 19 because of an informality in the use of the word "on." Applicant has amended Claim 19 to recite "one" in order to address this typo. Accordingly, Applicant respectfully requests withdrawal of this objection.

Section 112 Rejections

The Examiner has rejected Claims 2, 4-7, and 19 under 35 U.S.C. 112, second paragraph for insufficient antecedent basis. Applicant has amended Claims 2 and 4-7 to recite "said ignition source detector" and Claim 19 to recite "a resumption." Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of Claims 2, 4-7, and 19 under 35 U.S.C. § 112.

Section 102 Rejections

The Examiner has rejected Claims 1-5, 9, 10, 12-14, 16-17, and 21 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,191,695 to Hiyoshi Tatsuno ("*Tatsuno*"). Applicant respectfully traverses these rejections for the following reasons.

A prior art reference anticipates a claim "only if *each and every element* as set forth in the claim is found, either expressly or inherently described," in that reference. *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987) (emphasis added); *see also* M.P.E.P. § 2131 (quoting *Verdegaal Bros.*, 814 F.2d at 631); *see also* M.P.E.P. § 706.02 ("[F]or anticipation under 35 U.S.C. § 102, the reference must teach *every aspect* of the claimed invention either explicitly or impliedly."). In addition, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claims" and "[t]he elements must be arranged as required by the claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989); *In re Bond*, 15 USPQ 2d 1566 (Fed. Cir. 1990); MPEP § 2131 (*emphasis added*). Applicant submits that *Tatsuno* fails to teach each and every element as claimed.

For example, amended Independent Claim 1 recites, "an ignition source detector operable to directly detect an ignition source and, in response to detecting an unwanted ignition source, transmit a detection signal indicating the presence of an the unwanted ignition source." *Tatsuno*, in contrast, merely teaches detecting devices whose use may result in a static discharge, *not* directly detecting an ignition source. In particular, *Tatsuno* teaches that an electromagnetic-wave sensor 31 may be used to detect electromagnetic waves with a specific frequency generated from a portable phone 9. Col. 3, Lines 30-33; Col. 4, Lines 51-55. In response to detecting the portable phone frequency, the fuel-management unit 30 disclosed in *Tatsuno* transmits a detection signal to the control unit 21, which, in turn, causes the pump-drive-motors 12 to stop dispensing fuel. Col. 5, Lines 23-26. Even if a portable phone as disclosed in *Tatsuno* can result in a static discharge that can ignite fuel vapor, Applicant submits that the electromagnetic-wave sensor disclosed in *Tatsuno* merely detects a frequency generated by a portable phone, not static discharges from the portable phone. Accordingly, Applicant respectfully submit that Claim 1 and its dependents Claims 2-5, 9, 10, and 12 are allowable.

Independent Claims 13 and 14 recite limitations that are similar, although not identical, to the limitation of Claim 1 discussed above. Therefore, these claims are allowable for reasons analogous to those discussed above in connection with Claim 1. Claims 16-17 and 21 each depend from independent Claim 14 and are thus also patentable over the cited art.

Section 103 Rejections

The Examiner has rejected Claims 6, 7, and 18-20 under 35 U.S.C. 103(a) as being unpatentable over *Tatsuno*. Applicant respectfully traverses these rejections for the following reasons. In particular, these depend from one of independent Claims 1 and 13. For the reasons presented above, independent Claims 1 and 13 are allowable over *Tatsuno*, whether under Section 102(b) or 103(a). Therefore, Claims 6, 7, and 18-20 are allowable at least because they depend from one of allowable Claims 1 and 13. Thus, Applicant respectfully requests that these rejections be withdrawn.

The Examiner has rejected Claims 8, 11, 15, and 22 under 35 U.S.C. 103(a) as being unpatentable over *Tatsuno* in view of U.S. Patent No. 5,773,826 by David A. Castleman et al. ("*Castleman*"). Applicant respectfully traverses these rejections for the following reasons.

Applicant respectfully submit that the rejection of Claims 8, 11, 15, and 22 is improper because there is no showing of the required motivation to combine *Tatsuno* with *Castleman* to disclose, teach, or suggest the limitations recited in Claims 8, 11, 15, and 22. According to the Examiner in the Office Action mailed October 5, 2004, *Tatsuno* discloses all of the limitations of Claims 8, 11, 15, and 22 with the exception of a detector "capable of detecting sparks, embers or open flames." Office Action, page 6-7. The Examiner looks to *Castleman* for disclosure of these limitations. The Examiner states that "It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to incorporate the flame detector taught by Castleman et al with the system taught by Tatsuno because a combination of the two invention would result in a system capable of detecting and preventing several types of fire hazards at a fuel station." Office Action, page 7.

However, in order to modify a reference in an effort to produce the claimed invention, there must be some suggestion or motivation for such modification found in the reference itself or in the knowledge generally available to one of ordinary skill in the art at the time of the invention. M.P.E.P. § 2143.01. Further, in establishing a *prima facie* case of obviousness, it is incumbent upon the Examiner to provide evidence supporting why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). The mere fact that references can be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990); M.P.E.P. § 2143.01.

Here, the Examiner has not cited any language in *Tatsuno* or *Castleman* or within information commonly known to those skilled in the art that provides the necessary motivation or suggestion to combine the references. Rather, the Examiner merely asserts that the combination would have been obvious “because a combination of the two invention [*sic*] would result in a system capable of detecting and preventing several types of fire hazards at a fuel station.” Office Action, page 7. However, nowhere does *Tatsuno* disclose, teach, or suggest a need for a flame detector as disclosed in *Castleman*. In fact, *Tatsuno* merely teaches monitoring a predetermined frequency for detecting portable phones that may transmit electromagnetic-waves that interfere with gas-station equipment or whose use may result in an electrostatic discharge. *Tatsuno*, Col 3, Lines 30-33; Col. 1, Lines 13-25. Nothing in *Tatsuno* motivates or suggests the need for a flame detector as disclosed in *Castleman*. In addition, *Castleman* merely teaches a flame detector that monitors a broad spectrum of frequencies, including visible and infrared, in order to detect flames. Nothing in *Castleman* motivates or suggests the use of the disclosed flame detector with a system that monitors radio frequencies for detecting portable phones.¹ The Examiner does assert “it was known in the art ... that electromagnetic devices are capable of producing sparks when in the vicinity of fueling stations.” Though, the Examiner fails to illustrate how this statement provides the necessary suggestion or motivation to combine

¹ As is well known in the art, portable phones transmit at radio frequencies.

a system that monitors radio frequencies as disclosed in *Tatsuno* and a flame sensor that detects visible and infrared radiation as disclosed in *Castleman*. Thus, the suggestion or motivation required by M.P.E.P. § 2143.01 for the proposed combination of *Tatsuno* and *Castleman* does not exist, and the Examiner has failed to identify the source of such suggestion or motivation.

Furthermore, in failing to specifically identify specific teachings in the cited references that would suggest or motivate one of skill in the art at the time of invention to combine *Tatsuno* and *Castleman*, the Examiner has used hindsight to look at the system claimed in Claims 8, 11, 15, and 22 and then conclude that it would be obvious to combine the portable-phone detection system of *Tatsuno* with the teachings of *Castleman*. Measuring a claimed invention against the standard established by Section 103 requires the difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See, e.g., *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 220 USPQ 303, 313 (Fed. Cir. 1983).

In *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999), the Federal Circuit explained that evidence of a suggestion, teaching, or motivation is essential to avoid impermissible hindsight reconstruction of an applicant's invention:

Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references*. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight. *Id.* at 999 (emphasis added).

It is for this reason that the Examiner must specifically identify the reasons one of ordinary skill in the art would have been motivated to select the references and combine them. The Examiner can satisfy the burden of obviousness in light of a combination “only by showing some objective teaching [leading to the combination].” See, e.g., *In re Fine*, 5 USPQ.2d 1596, 1600 (Fed. Cir. 1988). Although evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, the range of sources available does not

diminish the requirement for actual evidence. Broad conclusory statements by the Examiner regarding the teaching of multiple references, standing alone, are not "evidence." *In re Dembiczak*, 175 F.3d at 999. Here, the broad conclusory statement of the Examiner that the combination would have been obvious "because a combination of the two invention would result in a system capable of detecting and preventing several types of fire hazards at a fuel station" is not evidence. Furthermore, Applicant submits that the Examiner mischaracterizes the teachings of *Castleman* with this statement. In particular, *Castleman* merely teaches detecting an existing fire not types of fire hazards, much less detecting and preventing types of fire hazards. Applicant respectfully submits that the Examiner has not provided the required evidence of a suggestion, teaching, or motivation to combine *Tatsuno* with *Castleman*. Without this evidence, the Examiner's rejections amount to no more than an impermissible hindsight reconstruction of Applicant's invention.

Furthermore, modifying *Tatsuno* as suggested by the Examiner would change the principle of operation of the portable-phone detection system disclosed in *Tatsuno* and render key features useless or inoperable. If a "proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." M.P.E.P. §2143.01. The principle of operation of the portable-phone detection system in *Tatsuno* is to process a predetermined frequency to detect portable phones. *Tatsuno*, Col. 2, Lines 50-58. The design, construction, and use of the portable-phone detection system as disclosed in *Tatsuno* that could use the flame detector disclosed in *Castleman* would require a substantial reconstruction and redesign of the elements in *Tatsuno*. The control unit 58 disclosed in *Tatsuno* would have to be redesigned to process signals indicating the detection of radiant energy from multiple spectrums, including visible, near infrared, and wide infrared spectrums, as opposed to a predetermined frequency. Therefore, for at least these reasons, Claims 8, 11, 15, and 22 are allowable. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 8, 11, 15, and 22.

New Claims

Claims 23-26 have been added. Claim 23 includes the limitations of Claims 1 as well as other limitations and is thus allowable for reasons analogous to those discussed above in connection with Claim 1. Claims 24-26 include the limitations of Claims 13 as well as other limitations and are thus allowable for reasons analogous to those discussed above in connection with Claim 13.

CONCLUSION

Applicant has now made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicant respectfully requests full allowance of all Claims.

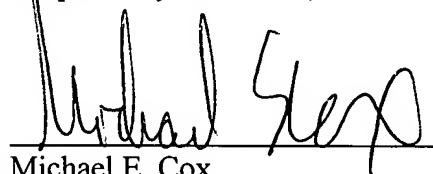
If the present application is not allowed and/or if one or more of the rejections is maintained, Applicant hereby requests a telephone conference with the Examiner and further requests that the Examiner contact the undersigned attorney to schedule the telephone conference.

Although no fees are believed to be due, please charge any fees or credits to deposit account 06-1050.

Respectfully submitted,

Date:

Dec 27, 2004



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Amendments to the Drawings:

The attached replacement sheet of drawings includes changes to Fig. 2 and replaces the original sheet including Fig. 2.

In Figure 2, reference to the label 230 was removed.

Attachments following last page of this Amendment:

Replacement Sheet (1 page)
Annotated Sheet Showing Change(s) (1 page)



FIG. 2

